

4XL

B.3

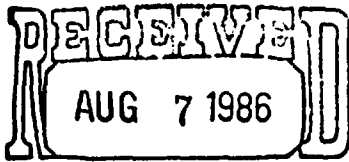
N.D

154028

*Sauget*

*Sanitary Development & Research Association*

10 MOBILE STREET  
SAUGET, ILLINOIS 62201



BY P.T.

August 4, 1986

Mr. Paul Tandler  
Cerro Copper Products Company  
P.O. Box 681  
E. St. Louis, Illinois 62202

Dear Paul:

Per our discussion, I am enclosing background documents pertaining to  
Sauget Wastewater Treatment History.

Please call if you require additional information.

Sincerely,

A handwritten signature in dark ink, appearing to read "W. L. DeFer". The signature is stylized with a large, sweeping "W" and a long, horizontal stroke.

W. L. DeFer  
Treasurer

WLD/ba

C07359

SCHEDULE OF EVENTS  
VILLAGE OF SAUGET - WATER POLLUTION CONTROL

1930's-Pump station installed for flood control.

1965-Formation of the Village of Sauget Sanitary Development and Research Association.

1966-Completion and startup of Primary Treatment Plant.

August 1970-Monsanto Biodize Started Treatability Study.

January 1971-Illinois PCB Adopted Secondary Treatment date of 12/31/73.

November 1971-Sauget Variance Request (R70-3).

January 1972-Illinois Effluent Standards Adopted

February 1972-Define process with Enviro-Chem--Chemical Treatment Plant.

March 1972-Flow and Loading commitment from Sauget industries.  
Illinois Water Quality Standards Adopted.

June 1972-Limited Biological Treatability Study-Sauget and East St. Louis.

August 1972-Regional Treatment discussions-SWIMPAC

October 1972-SWIMPAC Contracts with RETA-Regional Treatability

October 1972-Federal 180 Day Notice

December 1972-Variance Hearing and Federal Hearing

January 1973-Design Package complete for Chemical Treatment Plant  
Construction Permit Application for CTP

February 1973-Extension of Variance  
SWIMPAC Contract with RETA for Federal and State Grant Application

April 1973-File Grant Applications for Regional and Sauget Treatment Plant

May 1973-Construction Permit-Chemical Treatment Plant

June 1973-Request for Bids--Chemical Treatment Plant

1974-Sale of Revenue Bonds and beginning of construction of the Village p-Chem Plant

1977-Completion and startup of p-Chem Plant

1977-Agreement reached on the Regional Biological Waste Treatment Plant

May 1979-Step I Treatability Study completed (by Russel and Axon Consultants)

Dec. 1979-Pilot Plant study completed

March 1981-Submitted Pretreatment Program to the IEPA for the Physical Chemical Plant

May 1981-Submitted Pretreatment Program to the IEPA for the Regional Treatment Plant

December 1982-Bond Closing for the Sauget Local share of construction

December 1982-Begin construction Regional Plant

January 1983-IEPA Response to Pretreatment Programs

February 1984-Sauget Response to Phase I of IEPA comments of 1/83

March 1984-Sauget Response to Phase II of IEPA comments of 1/83

March 1984-USEPA Administrative Order, Pretreatment

May 1984-Sauget Resubmittal of Pretreatment Program.

May 1984-Sauget Submittal of Removal Authority Request for Copper Forming Category.

January 1985-IEPA response to Pretreatment Program and Removal Credit Authority Request.

May 1985-Sauget response to IEPA 1/85 comments and resubmittal of Pretreatment Ordinance.

October 1985-Sauget response to IEPA 1/85 comments and resubmittal of Removal Credit Authority request for Copper Forming and Non-Ferrous Metals Categories.

January 1986-Expected Start-up of Regional Plant.

Selected Schedule of Events  
Village of Sauget - Water Pollution Control

June 1965	--	Formation of the Village of Sauget Sanitary Development & Research Association.
Jan 1966	--	Agreement between Village and Association. Association to manage wastewater treatment and disposal for Village.
<u>1966</u>	--	<u>Completion and Start-up of primary treatment plant in Village.</u> This was required by the United States Public Health Service and the Illinois Sanitary Water Board after the 1959 Pollution Abatement Study Conducted by Horner & Shifrin.
July 1970	--	Illinois Environmental Protection Act becomes effective. PCB and IEPA replace Sanitary Water Board.
Aug 1970	--	Monsanto Biodize begins Treatability Study. During 1971 Biodize concludes that Sauget effluent is not conventionally secondary treatable.
Jan 1971	--	Illinois PCB adopts secondary treatment deadline of 12/31/73. IEPA requests secondary treatment implementation schedule from Village.
Sept 1971	--	Village files Variance Request, asking for extension of secondary treatment deadline.
Dec 1971	--	Illinois PCB grants extension of secondary treatment deadline in PCB 71-287. This was contingent upon meeting compliance schedule dates, reporting requirements, and bonding requirement. This variance has been amended by subsequent rulings and permits, however, the Village has remained subject to various secondary treatment project and grant deadlines from 1971 to date.
Mar 1972	--	SIMPAC contacts Sauget, proposes Regional treatment.
Jun 1972	--	Enviro-Chem Study concludes Joint Treatment of East St. Louis/Sauget Effluent possible, later confirmed in 1973 and 1979 by MERTA and Russel and Axon.
Oct 1972	--	Federal 180 day Notice Received.
Oct 1973	--	Monsanto CAC authorizes Monsanto participation in 1973 Treatment Agreement. Construction of Separate Monsanto Primary/Chemical Treatment facilities required 40% more capital and 70% more O&M. Village Treatment Agreement signed in Dec. 1973.

1976 -- Metcalf & Eddy study confirms SIMPAC recommendation, proposed American Bottoms Regional System as eventually developed.

1977 -- Completion and Start-up of P-Chem Plant.

1977 -- Regional Agreement signed: Sauget, East St. Louis, Cahokia, Commonfields of Cahokia, and Metro East Sanitary District. Sauget took the lead in obtaining this Agreement, with strong backing from IEPA and USEPA.

June 1981 -- USEPA Step 3 construction Grant Approval.

Oct 1982 -- Monsanto BOD authorizes Monsanto participation in 1982 Regional Treatment Agreement. (Expected Contract commitment of \$63.2M over 18 years.) Construction of a separate Monsanto treatment system would have required a minimum of \$60M capital with a 60% increase in Monsanto share of O&M expenses.

Dec 1982 -- Meetings held with IEPA/USEPA regarding need for industry pretreatment. EPA assures redundant pretreatment will not be required per removal credit regulations.

Dec 1982 -- Regional Treatment Agreement signed: Monsanto, Pfizer, Ethyl Petroleum Additives, and Cerro Copper. Bond closing for local share of construction costs. Contract let and construction begun. Had bonds not been sold in 1982, Bids would have expired and USEPA grant forfeited.

July 1985 -- Organic Chemicals (OCPSF) guidelines repropoed by USEPA. Restrictions on volatiles threaten removal credits.

Dec 1985 -- Monsanto submits comments on July 1985 OCPSF proposed regulations. Due to unique situation in Sauget, Monsanto requests separate subcategory for Sauget.

Apr 1986 -- Regional Treatment Plant Start-Up. (primary treatment) U.S. 3rd Circuit Court invalidates removal credit regulations.

AMERICAN BOTTOMS REGIONAL TREATMENT PLANT

START-UP STATUS/PLANS

Feb. 1986	Plant "substantially complete". Plant staff takes over plant site.
March	Equipment check-out: Primary system. Startup of East St. Louis and Cahokia pump stations.
April	Primary Treatment Startup.
June	Equipment check-out: Secondary system. Project mechanical completion June 23, 1986.
July	Secondary Equipment Startup. Seeding/Stabilization begun.

---

3rd-4th Qtr., 1986	Add Sauget, Acclimate, Zimpro Startup.
--------------------	--

Major Industries Involved in the  
American Bottoms Regional Treatment Facility

<u>Company</u>	<u>Location</u>	<u>SSDRA Member</u> (1)	<u>1982 Treat. Agreement</u> (2)	<u>Applicable Categorical Standards</u>
Monsanto	Sauget	Yes	Yes	OCPSF, Pesticides
Ethyl	Sauget	Yes	Yes	OCPSF
Cerro Copper	Sauget	Yes	Yes	Copper Forming Non Ferrous, Metal Casting
AMAX Zinc	Sauget	Yes	No	Non Ferrous
Midwest Rubber	Sauget	Yes	No	None <sup>1</sup>
Pfizer	E.St.L.	No	Yes	None <sup>2</sup>

(1) Sauget Sanitary Development and Research Association

(2) Agreement that backed the bonds for regional

WLS - 07/09/86

- 1 - No PSES in Rubber Reclaiming Subcategory of Rubber Manufacturing  
2 - Iron Pigments were dropped from Inorganic Chemicals CATEGORY

C07365

SUMMARY DESCRIPTION OF  
JOINT MUNICIPAL/INDUSTRIAL  
WASTEWATER TREATMENT FOR METRO EAST ST. LOUIS, ILLINOIS

The Metro-East St. Louis service area is comprised of the City of East St. Louis, the Village of Sauget, the Village of Cahokia, and the area serviced by the Commonfields of Cahokia Public Water District. The existing facilities include a primary treatment plant for East St. Louis, a primary treatment plant for Cahokia and the Commonfields, and a physical/chemical treatment plant for the Village of Sauget. The sewered population served by these three treatment plants and their respective flows are shown in Table I.

Table I. Service area requirements.

	<u>1980</u>	<u>2000</u>
Connected Population	85,200	103,200
Average Flow (M <sup>3</sup> /S)	1.38	1.18

A study for the Metro-East St. Louis Facilities Planning Area was completed during December 1976 with the major recommendations being:

1. Treatability studies should be undertaken to verify design criteria for the proposed regional facility;
2. A combined sewer excess flow treatment facility should be constructed at the existing East St. Louis treatment plant; and
3. A new regional treatment facility should be constructed in Sauget to treat the raw wastewater from East St. Louis and Cahokia, and the primary effluent from the Sauget physical/chemical treatment plant.

In 1976 the Village of Sauget entered into an agreement with the City of East St. Louis, the Village of Cahokia, the Commonfields of Cahokia Public Water District, and the Metro East Sanitary District whereby it would construct, own, and operate a regional biological wastewater treatment plant to provide service for the Metro East area. This wastewater treatment project is being handled through the EPA construction grants program with the Village of Sauget acting as the lead agency. In July 1978 the Federal EPA approved a Step 2 regional grant which was amended to a total of \$3.18 million as of June 1980. In addition, the project was awarded a Step 1 grant, in the amount of \$170,000 to conduct a First Flush Study of the East St. Louis combined sewer system.

Under the Step 2 grant the consulting firm of Russell & Axon, Engineers-Planners-Architects, Incorporated, St. Louis, was selected by the Village of Sauget to: 1) conduct a bench scale treatability study and a pilot plant study; 2) develop a municipal pretreatment program; 3) develop a user charge and industrial costs recovery program; and 4) complete plans and specifications for construction of the regional treatment plant, two pump stations, and connecting force mains.



The configuration of the treatment plant, known as the American Bottoms Regional Wastewater Treatment Facility, is shown schematically in Figure 1.

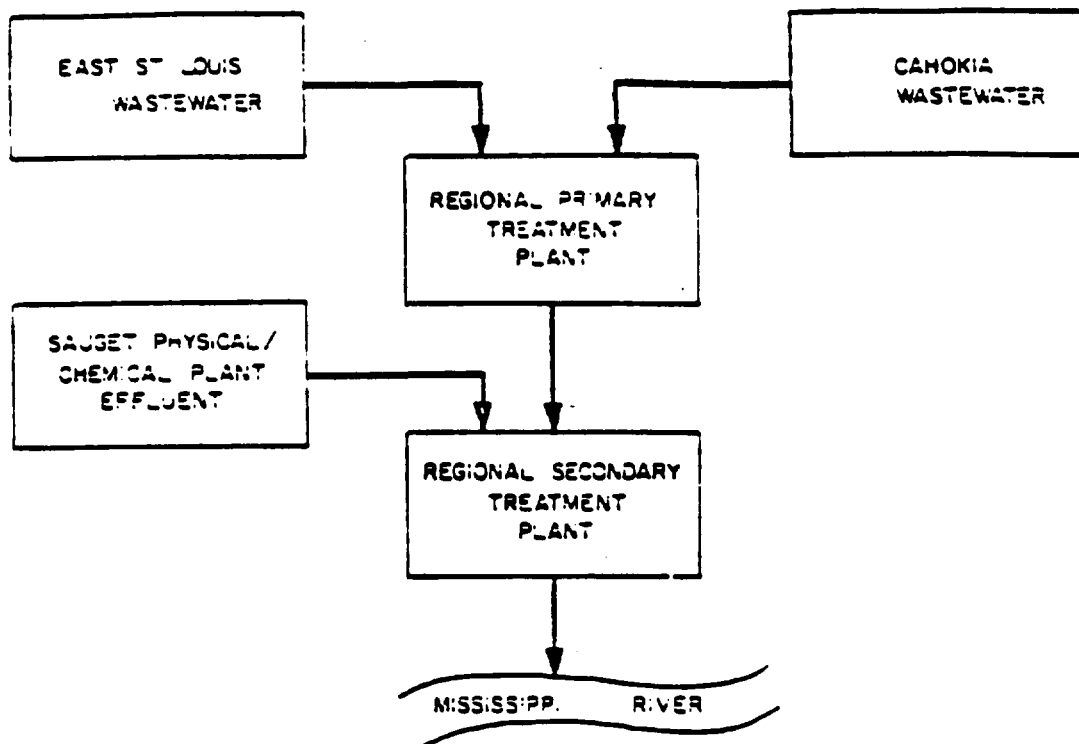


Figure 1. Schematic of the American Bottoms Regional Wastewater Treatment Facility.

Wastewater from the East St. Louis sewer system will be conveyed from a new pump station through a 42 in., 1 mile long force main to the headworks of the regional treatment facility. Wastewater from the Cahokia sewer system will be conveyed in a similar manner from a rehabilitated pump station through a 30 in. force main for a distance of approximately 3 miles. These wastewaters, after mixing at the headworks, will receive conventional primary treatment constituting the first portion of the new American Bottoms Facility. The primary effluent will be combined with the Sauget physical/chemical effluent for combined secondary powdered activated carbon/activated sludge treatment.

## WASTEWATER CHARACTERIZATION

Prior to commencing with the treatability and pilot plant studies, that determined the process selection, it was necessary to understand the type of wastewater to be treated.

East St. Louis is an economically depressed area with significant industrial development. Among the major users of the sewer system are: Beck Flavors, Certainteed, Chemtech Fluoride, Circle Packing, Hunter Packing, Pfizer, Inc., Morris Paint and Varnish, and Musick Plating. The major effects of the industrial wastes in the East St. Louis sewer system are to produce a sewage extremely high in iron content and in packinghouse wastes. The entire Metro-East region is located in an area protected from the Mississippi River by a levee system. High groundwater conditions exist for the majority of each year and the soil is extremely sandy. Portions of the East St. Louis combined sewer system are up to 60 years old; therefore, significant infiltration/inflow exists. Efforts are underway and will continue for several years to reduce these extraneous flows to a manageable level.

The Village of Sauget sewerage system consists of combined sewers and a physical/chemical treatment plant. Major contributing facilities are: Cerro Copper Products, Monsanto Company, Midwest Rubber Reclaiming, Amax Zinc, and Edwin Cooper. During 1977 the Village completed a physical/chemical "primary" treatment plant which will remain operational as part of the regional project as shown schematically in Figure 1. The unit processes of this treatment plant consist of rough screening, grit removal, three stage lime neutralization, polymer addition, flocculation, and clarification. The plant was constructed at a total cost of \$8.67 million and was financed with industrial revenue bonds backed by the Sauget industries.

The Cahokia input to the system is characteristically domestic sewage with intermittent high loadings of settleable inert solids. These solids, mainly sand, are apparently introduced into the sewer system through cracks, open joints, and poorly sealed manholes. While the sewer system is relatively new (approximately 30 years old), its poor condition is primarily the result of high groundwater during a 1973 flood of the Mississippi River. No industry exists within the city limits of Cahokia.

Summarizing, the combined wastewater from the three communities is approximately 40 percent domestic sewage and 60 percent industrial wastewater (flow basis). The three most significant parameters observed during this study (COD, BOD<sub>5</sub> and suspended solids) are shown in Table II for each community.

TABLE II. Regional wastewater influent characteristics.

	Flow (m <sup>3</sup> /s)	COD (mg/l)	BOD <sub>5</sub> (mg/l)	Suspended Solids (mg/l)
East St. Louis	0.53	1,040	393	1,015
Sauget Effluent	0.47	454	210	35
Cahokia	0.14	561	224	201

These numbers represent average values projected for design purposes.

## TREATABILITY AND PILOT PLANT STUDIES

During the course of this project three treatability studies were completed using: 1) four bench scale activated sludge reactors, 2) a complete mix activated sludge pilot plant, and 3) a powdered activated carbon/activated sludge pilot plant. A comparison of the removal efficiencies are shown in Table III.

TABLE III - Removal Efficiency (%)

	<u>Bench Scale Reactor Study</u>	<u>Activated Sludge Pilot Plant</u>	<u>Activated Sludge/ Activated Carbon Pilot Plant</u>
COD	72	56	80
BOD <sub>5</sub>	98	96	97
SS	92	35	35

## PILOT PLANT COMPARISON

The conclusion from several months of bench scale treatability work and pilot plant studies indicated that it was possible to effectively treat the American Bottoms wastewater using either a strictly biological treatment system or the PACT process. The criteria indicated, based on conventional efficiency parameters, that the PACT system was the best performer.

Before making a final process recommendation, the consultant also evaluated numerous metal and non-conventional parameter removal efficiencies. Priority pollutants (non-conventional parameters) were investigated to aid in the development of a regional pretreatment program prior to construction of the treatment plant. This factor is extremely important because of the number of the industries that will be served by this project.

The CMAS pilot plant exceeded the discharge limit for iron and only marginally met the limits on lead, manganese, and mercury. Of the 72 priority pollutants detected the PACT removal efficiency was essentially equal to the CMAS efficiency. Only 37 of these substances were significant and are shown in Table IV.

After the two likely processes had been compared strictly from process and performance standpoints, a cost-effective analysis was made and a final treatment process recommendation was made for the American Bottoms project. The results of the cost comparison indicated that of eight treatment schemes analyzed, the three most economical were within two percent of each other and were thus considered economically equivalent. The final process decision was based on projected performance and reliability.

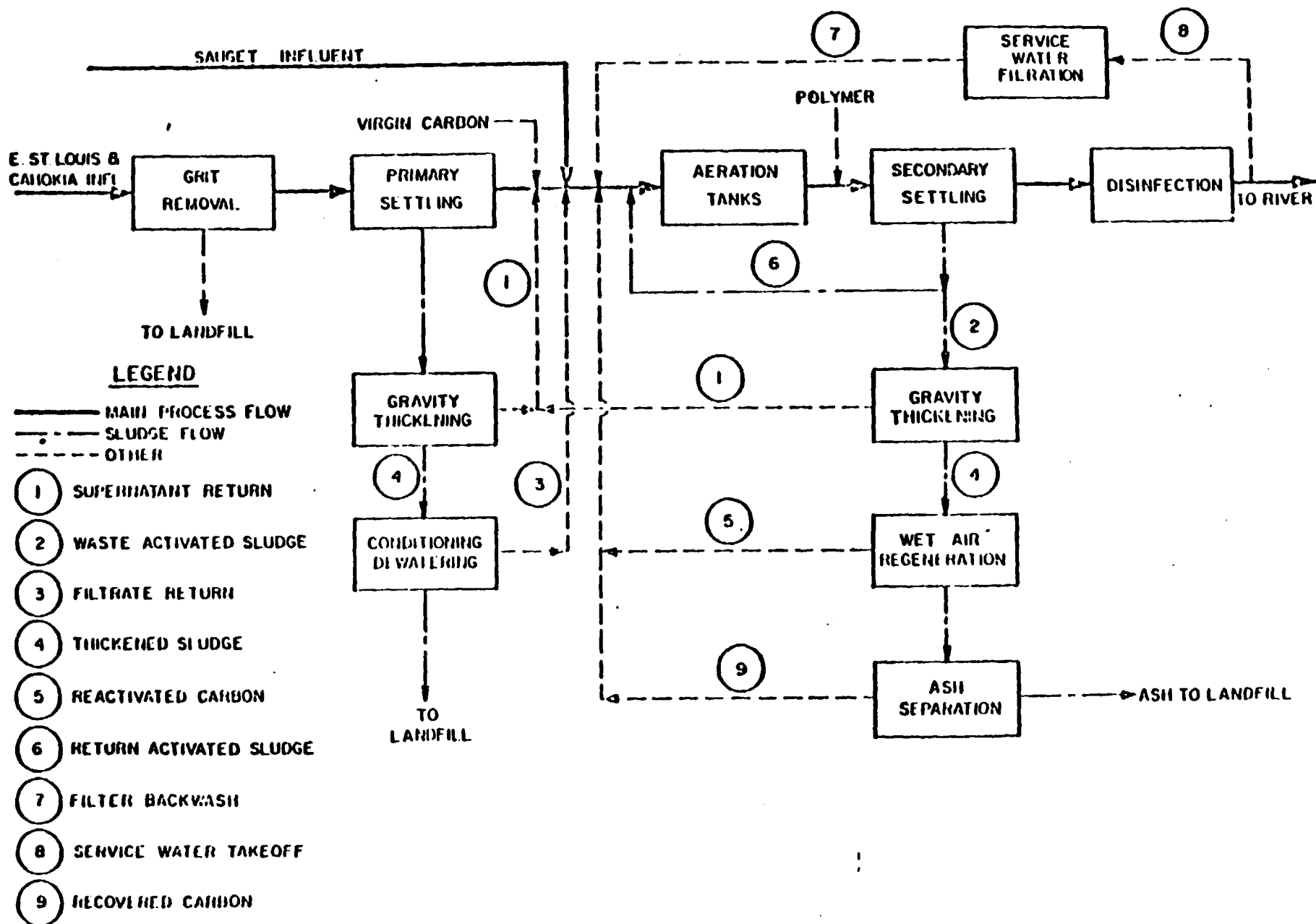


Figure 2 American Bottoms Regional Wastewater Treatment Facility schematic.

TABLE IV. Average priority pollutant removals for the CMAS and PACT pilot plants.

Parameter	CMAS PILOT PLANT			PACT PILOT PLANT <sup>a</sup>		
	Influent (µg/l)	Effluent (µg/l)	Removal Efficiency (%)	Influent (µg/l)	Effluent (µg/l)	Removal Efficiency (%)
Benzene	1248	< 3.4	> 99.7	907	< 3.0	> 99.6
Chlorobenzene	916	3.3	99.7	597	3.7	99.3
1, 2, 4 - Trichlorobenzene	35	ND	100	62	ND	100
1, 1, 1 - Trichloroethane	4	ND	100	7	ND	100
2, 4, 6 - Trichlorophenol	94	< 1	> 99	81	ND	100
Chloroform <sup>b</sup>	76	22	72	87	25	71
2 - Chloronaphthalene	52	ND	100	ND	ND	-
2 - Chlorophenol	112	< 1	> 99	98	ND	100
1, 2 - Dichlorobenzene	134	ND	100	113	ND	100
1, 3 - Dichlorobenzene	154	ND	100	67	ND	100
2, 4 - Dichlorophenol	160	< 1	> 99	116	< 1	> 99
Ethylbenzene	29	< 1	> 97	26	ND	100
1, 4 - Dichlorobenzene	48	ND	100	ND	ND	-
Methylchloride <sup>c</sup>	21	12	43	11	91	-
Dichlorobromomethane	< 2	< 1	50+	2.3	ND	100
Napthalene	20	ND	100	ND	ND	-
2 - Nitrophenol	544	< 4.2	> 99.3	1067	< 1	> 99.9
4 - Nitrophenol	544	< 4.2	> 99.3	543	2.7	99.5
Nitrobenzene	33	ND	100	ND	ND	-
Pentachlorophenol	31	< 1	> 96.7	35	ND	100
Phenol	199	< 1	> 99.5	366	1	99.7
bis (2-Ethyhexyl) Phthalate	68	16	76	92	103	-
Butyl Benzyl Phthalate	425	< 1.6	> 99.7	378	< 1	> 99.7
Di-n-Butyl Phthalate	7	1	86	8	3	62
Diethyl Phthalate	8	ND	100	8	ND	100
Anthracene	< 17	ND	100	< 13	ND	100
Phenanthrene	< 17	ND	100	< 13	ND	100
Tetrachloroethylene	< 1	ND	100	< 1	ND	100
Toluene	795	< 2	> 99.7	1195	< 2	> 99.8
PCB - 1242, 1254, 1271	< 1	< 1	-	< 1	< 1	-
PCB - 1232, 1248, 1260, 1016	< 1	< 1	-	< 1	< 1	-
Phenolic Compounds	1800	80	95.6	2400	200	91.7

<sup>a</sup> 4.0 hour aeration time.<sup>b</sup> Drinking water background exceeds 50 µg/l chloroform.<sup>c</sup> Influent and effluent numbers suspect due to possible laboratory background interference.

After taking into consideration the results of the study, Russell & Axon recommended design of a PACT/Wet air regeneration system for the American Bottoms Regional Wastewater Treatment Facility. The PACT process was considered more advantageous for the following reasons:

1. Operational flexibility is available at all times to handle varying wastewater conditions;
2. It consistently met Illinois effluent standards for conventional pollutants without filtration;
3. Secondary sludge is reduced to an inert ash by the wet-air oxidation process;
4. The aeration time could be as little as 2.5 hours;
5. Color is removed to a great extent thus providing a more aesthetic effluent. Because of this it is also possible to use the effluent for plant service water.
6. The aeration time coupled with an autothermal secondary sludge destruction process will provide considerable energy savings; and
7. Chemicals are not required for secondary sludge processing and large quantities of secondary sludge (mostly water) would not be hauled from the site.

Disadvantages of the PACT system include the use of polymer, the utilization and consumption of carbon, and the use of a proprietary system which requires sole source approval.

The specific treatment scheme (Figure 2) will consist of a 1.18 m<sup>3</sup>/s treatment plant with the following unit processes: grit removal, primary clarification, gravity sludge thickening, primary sludge vacuum filtration and secondary sludge wet air regeneration. Total construction costs for this project is estimated at about \$77,000,000. Completion of the design (plans and specifications) was in June 1981 with construction started during late 1982. Startup is scheduled to commence at the end of 1985.

In support of this project several other studies are currently underway. They are: a regional pretreatment program, a pretreatment program for the existing Sauget physical/chemical treatment plant, development of a user charge system, and a first flush study and a sewer system evaluation survey for East St. Louis.

#### SUMMARY

The new American Bottoms Regional Wastewater Treatment Facility will provide the Metro East St. Louis industries and communities with a pretreatment program and a secondary wastewater treatment system capable of meeting State and Federal regulations. This combination of compliance with Clean Water Act requirements and low cost is essential for the stability of the communities and retention of industry in the Metro East St. Louis area.

RECEIVED

MAY 24 1978

STATE OF ILLINOIS )  
COUNTY OF ST. CLAIR )

POLLUTION CONTROL BOARD

BEFORE THE POLLUTION CONTROL BOARD  
OF THE STATE OF ILLINOIS

THE VILLAGE OF SAUGET,

Petitioner,

v.

ENVIRONMENTAL PROTECTION AGENCY,

Respondent.

PCB 77-136

STIPULATION OF FACT

Petitioner, The VILLAGE OF SAUGET, (hereinafter "Sauget") and the Respondent, the Illinois Environmental Protection Agency, hereby stipulate that the following fairly represents the evidence and testimony which would be introduced by the parties at a hearing. Neither the fact that a party has entered into a stipulation nor any of the facts stipulated herein shall be used whatsoever in any other proceeding between the parties or with others. None of the matters covered herein may be construed

C07370

completed, whichever occurs first, with an interim limit of 19 mg/l on a 30-day average.

(d) Denial as to mercury until certain showings are made to the Agency. (See Paragraph 6 of the Amended Recommendation)

2. Sauget is a municipal corporation organized and existing under the provisions of The Illinois Municipal Code of 1961, as amended, (Ill. Rev. Stat. 1975, ch. 24, §1-1-1 et. seq.) It is located on the Mississippi River in St. Clair County, Illinois between the City of East St. Louis and the Village of Cahokia. Sauget owns and, under contract, causes to be operated a physical-chemical waste treatment plant for treatment of its effluent which discharges into the Mississippi River. The plant provides physical and chemical treatment for removal of metals and insoluble organics. Unit operations include solids removal, neutralization, flocculation and clarification, and oil skimming.

3. Sauget's primary waste treatment plant, completed in 1967, as well as its recently completed physical chemical waste treatment facilities, have been and are operated by the Village of Sauget Sanitary Development and Research Association, (the "Association"), under contract to the Village of Sauget. The Association, formed in 1965, is a not-for-profit corporation nine of whose ten directors represent certain of the industries



7. Sauget's present discharges to the Mississippi River are from Sauget's physical-chemical treatment plant. The chemical treatment part of this plant has recently been completed and is designed to treat and remove metals and insoluble organic contaminants from Sauget's wastewater. The specifications for this physical-chemical plant, prepared by Monsanto Envirochem Systems, Inc., the design engineers of the installation, indicated that the plant, when completed, would meet all the applicable effluent limitations presently contained in Chapter 3 except the Illinois limitations for BOD, suspended solids, oil and grease, phenol and mercury. The plant was designed to treat for, among other contaminants, suspended solids oil and grease. For suspended solids the design criteria indicated a 35 mg/l performance capability but did not identify a quantified capability for oil and grease. (Joint Group Exhibit A).\*

8. Construction of this physical chemical treatment facility was approved by the Illinois Environmental Protection Agency (the "Agency") in construction permit #1973EB-998.

9. The chemical/physical plant is incapable of meeting all the applicable Illinois limitations.

---

\*All exhibits are sequentially numbered internally.  
E.g., Exhibit A-3 is page 3 of Exhibit A.

receive biological treatment, which would require the construction of an additional plant especially for that purpose. Such a plant can be built in a cost/effective fashion only when the neighboring municipalities, East St. Louis, Cahokia, Commonfields of Cahokia Public Water District and the Metro-East Sanitary District of St. Clair and Madison Counties (formerly the East Side Levee and Sanitary District) entered into an intergovernmental agreement with Sauget to fund, acquire, construct, operate and maintain the proposed regional plant; approval of that agreement is given; and grants are awarded by the United States Environmental Protection Agency and Illinois Environmental Protection Agency. The Illinois Environmental Protection Agency is committed to accomplishing regional treatment in St. Clair County and believes that a reasonable solution is that Sauget own and operate the needed regional facility, as has been agreed. The United States Environmental Protection Agency has indicated its willingness to provide grant funds upon proper application for that facility.

11. An agreement in principle among the local units of government of the Village of Sauget, the City of East St. Louis, the Village of Cahokia, the Cahokia Commonwealth Public Water District, and the Metro-East Sanitary District has now been reached. (Joint Exhibit B). This agreement came about as a result of efforts of the Agency, with Sauget's diligent

(c) In August, 1970, the Village of Sauget and the Association, recognizing that additional treatment probably would be required, contracted with Monsanto Biodize Systems, Inc. (a division of Monsanto Envirochem Systems) to perform an engineering study to analyze the characteristics of the Sauget wastewater and to develop a proposal for an advanced wastewater treatment plant. Based upon that study, Sauget and the Association considered the following alternatives for achievement of these limitations:

- (1) Individual treatment by each industry. This was rejected because it was far more costly than combined treatment.
- 2) Biological treatment. This was rejected because biological treatment was found to be impossible on the predominantly industrial Sauget wastes.
- (3) Carbon treatment. This was rejected because the cost was found to be excessive, with some serious doubts as to success of treatment.
- (4) Chemical treatment. This was accepted as the most cost effective and efficient means

(e) In March, 1972, Sauget received a letter from the regional planning agency, Southwestern Illinois Metropolitan Area Planning Commission (SWIMPAC), stating its belief that a regional wastewater treatment approach by the Village of Sauget with other St. Clair and Madison County areas might result in lower capital and operating costs for secondary treatment. SWIMPAC further recommended that the Village of Sauget apply for a stay of its existing variance and submit a revised time table so as to allow adequate time to pursue the concept of regionalization. SWIMPAC had been created to plan and coordinate, among other things, inter-governmental body relationships in, among other Illinois counties, St. Clair County, Illinois in which Sauget is located (Ill. Rev. Stat. 1975, Ch. 85, §1151). In October, 1970, the Governor of Illinois had designated SWIMPAC to carry out the Water Quality Management Program required by both the Federal and the Illinois Environmental Protection Agencies. Exercising such powers, SWIMPAC engaged in a Water and Sewer Program for the western part of St. Clair County and the southwestern part of Madison County and the several municipalities located therein. Because of the geographical proximity of the Cities of East St. Louis, Madison, Venice and Centreville and the Villages of Sauget, Cahokia, Dupont, Brooklyn, National City, Alorton, Washington Park and

3. If determined to be feasible, a regional biological waste treatment plant would be constructed in Sauget to treat wastewater from the above-named area.

(h) In October, 1972, the engineering firm of Ryckman, Edgerley, Tomlinson, and Assoc. (RETA) was chosen to perform the pilot plant treatability study under the direction of SWIMPAC and an advisory committee. The study was paid for entirely by Sauget. Later, in February, 1973, Sauget agreed to pay for an expanded scope of work to be performed by RETA to include filing of a Step I federal grant application for the proposed facility.

(i) In January, 1973, engineering plans and specifications for the Sauget chemical treatment plant were completed and submitted for approval and the issuance of a construction permit. In May, 1973, the Agency released Sauget from the \$50,000 performance bond imposed by the Board in the prior variance, PCB #71-293.

(j) In February, 1973, the Metro-East Regional Treatment Association (MERITA) was formed as a result of an inter-governmental agreement among the Village of Sauget, the City of East St. Louis and the East Side Levee and Sanitary District to provide for regional secondary treatment for East St. Louis, Sauget and

(m) Having received its construction permit, Sauget called for proposals ("bids") for construction of its chemical treatment plant, which proposals were received in October, 1973. The actual construction contract was executed in February, 1974 after temporary and permanent financing had been arranged.

(n) In 1974, the Village of Sauget issued and sold \$7.8 million in Pollution Control Revenue Bonds and also \$800,000 in General Obligation Bonds to finance construction of the chemical treatment plant. Sauget has not received and will not receive Federal or Illinois grants for such construction, although it has received a Federal grant for that part of its engineering which was used in Step I of the regional concept.

(o) In February, 1974, Sauget proposed a regional treatment organization to all involved regional parties in an attempt to resolve the regional issue. This position was also communicated to Illinois Environmental Protection Agency. However, no agreement was reached regarding this potential solution.

(p) On April 29, 1974, RETA completed a supplemental study entitled "Wastewater Treatment Costs Analysis for Residential and Industrial Users of the Proposed Metro-East Regional Wastewater Treatment Facilities".

(t) On August 21, 1975, these representatives named (in subparagraph s), met with representatives of the Illinois Environmental Protection Agency Water Planning Section to review procedures and requirements to qualify for federal regionalization. The representatives presented and distributed draft resolutions for obtaining requisite participation authority. It was agreed to obtain approval for said resolutions by not later than September 9, 1975.

(u) On or about September 9, 1975, representatives of St. Clair and Madison Counties, the Village, East St. Louis and the Levee District agreed that a viable regional authority should be formed. These representatives further agreed to select St. Clair County as the "lead agency" (the "designated areawide planning agency") for purposes of securing a Step I grant.

(v) On or after September 9, 1975, St. Clair County duly applied to the United States Environmental Protection Agency ("USEPA") for Step I grant funding in order to retain an independent consultant to prepare a study and report evaluating alternative regional wastewater treatment schemes together with a management agency study for the region which includes the Village;

(bb) On October 25, 1976, Sauget submitted a proposal for the funding, acquisition, construction, operation, ownership, and management of the regional treatment plant and system to the municipalities involved: East St. Louis, Canokia, the Commonfields of Canokia Public Water District and the East Side Levee & Sanitary District. This proposal was also sent to Illinois Environmental Protection Agency.

(cc) After that proposal was made, the Illinois Environmental Protection Agency coordinated and conducted several meetings between the various municipalities in an attempt to reach an agreement so that progress towards realization of the regional treatment plant could be made. Sauget cooperated with the Agency in this endeavor.

(1) On March 4, 1977 the Agency held a meeting of the parties involved in the project. At that meeting Sauget's proposal to implement the technical solution for the regional plant was discussed.

(2) On March 14, 1977, the Agency held individual meetings with the affected municipalities.



and proposed that it own, build and operate the regional plant.

(hh) Over the next several weeks, numerous discussions took place among the municipal governments involved and the Agency, which resulted in an agreement in principle. (Attached as Joint Exhibit B). The Village Board of Sauget approved the agreement on September 6, the City Council of East St. Louis on September 14, the Village Board of Cahokia on September 9, the Trustees of the Cahokia Commonfields Public Water District on September 7, and the Trustees of the Metro-East Sanitary District on September 7, 1977. Copies of the approvals of these municipalities of Joint Exhibit B are attached as Joint Group Exhibit E.

(ii) Sauget has been designated as the lead agency and received priority certification by the Agency for submission of a Step II (design) grant for the regional facility. (Joint Exhibit F).

13. Sauget, like the Agency, has expended considerable time, effort and expense in securing an agreement to form a governing body for the proposed regional treatment facility.

(d) November 1978 - Sauget completes Step I, East St. Louis first flush determination, and submits Step II design grant application.

(e) September, 1979 - Step II design (plans and specifications) is completed for the regional plant. Sauget submits Step III construction grant application. Construction is expected to take 4 years.

(f) November, 1979 - Sauget completes Step II design for East St. Louis first flush system and submits Step III construction grant application.

(g) September, 1980 - Sauget (and the other affected municipalities) complete Step I SSES and submit Step II design grant application for sewer rehabilitation.

(h) September, 1981 - Step II design plans for SSES are completed and application for Step III construction grants for sewer rehabilitation made.

(i) September, 1983 - Sewer rehabilitation work is completed. Sauget completes the East St. Louis First Flush Facility and the regional plant.

immediately after the physical-chemical facility had begun full-time operations on April 3, 1977. In November, 1976, the new facility was run on a one-shift basis, five days a week to check out mechanical operations. From December 6 to December 17, 1976 (excluding week-ends) the facility was operated twenty-four hours a day to check process operation. During January, February and early March, 1977, Sauget completed remaining items of construction and items shown as needing correction from the previous operational experiences. On March 14, 1977 operators were hired to run the plant and given classroom training. From March 21 through April 1, the operators were given on the job training running the new facility two-shifts per day. On April 3, 1977, Sauget began 24 hour per day continuous operation of the chemical treatment facility which has continued at all subsequent times.

18. The first three months of operations at this facility were primarily directed towards improving the reliability of the plant by making the necessary mechanical adjustments. The costs of these modifications exceeded \$60,000.00. Since July 1, 1977, Sauget has concentrated on optimizing the plant's performance by adjusting the chemical additives to the processes.

either party may seek a variance from the interim limits set forth in the order in this case.

20. Since the startup, much difficulty has been experienced in meeting either the state suspended solids effluent standard, or the plant's design criteria. Significant progress has been achieved, but the entire operational history of the plant (approximately 10 1/2 months) has been marked by extreme variations in suspended solids removal efficiency. In any given week, 24 hour composite samples have varied from below the state's 25 mg/l standard, to high values of well over 500 mg/l. Oftentimes these fluctuations occur without any accompanying perceptible changes in water quality condition.

In retrospect, the suspended solids effluent quality problems appear to have been caused by two types of problems:

- (a) inadequate or inefficient polyelectrolyte dosage

- (b) solids overloading in the clarifiers.

The first problem category deals directly with the treatment process. Proper polyelectrolyte dosage and mixing is necessary to insure solids particle coagulation and removal. Actions taken to optimize polyelectrolyte dosage have been as follows:

(a) Air sparger pipes were added to facilitate solids removal from the pits.

(b) Sludge pump out and raking schedules were optimized.

(c) Rakes were extended to drag solids over the middle of the pits.

(d) Daily tests were initiated to determine the expected amount of sludge generation for a given 24 hour period. This enables a check on the adequacy of sludge removal.

Cost of these improvements was approximately \$15,000.00.

Individually and collectively these changes have improved solids coagulation, settling and removal. Overall suspended solids removal efficiencies have improved as a result. January results ranged from a low of 6 mg/l to a high of 140 mg/l. However, only 3 values were above 40 mg/l. This has been the best overall month since plant startup.

Another problem, however, remains. Enormous solids buildup were discovered in early February, 1978 in the clarifiers. These were removed manually, by clamshell bucket. Saugnet is examining methods to solve the problem, including consideration of an agitation system (approximate cost of \$200,000.00) to improve solids removal.

of treatment capability as well as Monsanto's inability to meet the standard, notwithstanding the fact that the technology presently being considered by Monsanto is the best available treatment technology to control mercury discharge.

22. Since completion and the beginning of operations of its chemical waste treatment facility, substantially improved effluent from Sauget should result; effluent much better than that existing when Board granted a variance in PCB 71-287 and in later proceedings. Operation of the physical-chemical treatment plant by Sauget, until diversion of its effluent to the regional treatment plant can be accomplished, to the best of the parties' knowledge, will not have an adverse impact upon Mississippi River water quality.

23. Sauget herein has asked for a variance from Rule 409 in order that that Rule would not be a bar to Agency certification and approval of Sauget receiving federal funds for design and construction of the regional treatment facility. The Agency has advised Sauget that the Agency does not consider Rule 409 to be a bar to such grant eligibility and Agency approval of the regional plant so that federal funds will be available. If the Agency's interpretation of Rule 409 is also that of the Board, then no arbitrary or unreasonable hardship would exist because of that rule. (The parties

the industries serviced reduced their influent flow to the treatment plant. In 1970, studies were made of the means by which further improvement could be made in the Sauget effluent which resulted in the construction of the complex chemical treatment facility, put into operation April, 1977. This facility was a necessary first-step before biological or other advanced treatment could be feasible. This facility is now in operation on a fulltime basis with the result that Sauget's effluent is substantially improved.

(c) To achieve compliance with the Board's rules (except for mercury) further treatment is necessary for BOD and phenols, and appears necessary at this time, for suspended solids and hexane soluble oils. The RETA and Metcalf and Eddy reports show that the cost/effective method of achieving compliance with these regulations is the construction of a regional biological treatment facility in Sauget to receive the effluent of Sauget, East St. Louis, Cahokia and the Water District. An inter governmental agreement has now been reached to implement this recommendation. Important aspects of the agreement are Sauget's commitment to provide temporary financing of the local share of the Step II treatment plant design grant applications and Step I plans for SSES and the first flush holding facility for the regional plant

SAUGET EXHIBITS

- A -- Permit application and variance reports
- B -- Agreement of Municipalities
- C -- Board Opinions
- D -- Metcalf and Eddy Conclusions
- E -- Resolutions of Municipalities
- F -- Certification letter for Illinois  
Environmental Protection Agency
- G -- Metcalf and Eddy costs estimate
- H -- Performance Data

EXHIBIT - 0

C07387



STATEMENT  
BY  
MICHAEL R. FORESMAN  
REPRESENTING  
THE VILLAGE OF SAUGET (ILLINOIS)  
AND  
THE VILLAGE OF SAUGET (ILL.) SANITARY DEVELOPMENT  
AND RESEARCH ASSOCIATION

At the Public Hearing  
Of the Illinois Environmental Protection Agency  
Collinsville, Illinois

Tuesday, January 7, 1975

My name is Mike R. Foresman, and I'm a member of the Board of Directors of the Village of Sauget Sanitary Development and Research Association. I hold a B.S. Degree in Mechanical Engineering from the University of Missouri at Rolla, a M.S. degree in Environmental Engineering from Washington University in St. Louis, Missouri, and am a Registered Professional Engineer in Missouri and Illinois.

Today I would like to present a statement on behalf of the Village of Sauget Sanitary Development and Research Association and the Village of Sauget.

As we understand the purpose of this hearing, the Illinois Environmental Protection Agency is soliciting statements from interested individuals concerning the designation of a three county areawide waste treatment management planning area with SIMAPC as the regional agency to prepare the areawide plan.

We feel SIMAPC is completely qualified to prepare the areawide plans and would urge the Governor to designate SIMAPC as the regional planning agency under Section 208 of PL 92-500 for the three county area consisting of Madison, St. Clair, and Monroe counties. This designation, as we understand it, will not affect the previously completed and on-going water quality and water pollution programs in the Metro East St. Louis Area. Our working relationship with SIMPAC goes back to early 1972 when SIMAPC was

preparing an Interim Water Quality Management Plan for the East St. Louis Intensive Study Area.

Throughout our association, SIMAPC has shown a thorough understanding of the Water Pollution problems associated with the Metro East St. Louis area and has displayed a high degree of technical and managerial competence in the development of the Regional Waste Treatment Management Plan for the Metro-East St. Louis Area.

As a matter of background, the Interim Water Quality Management Plan was prepared by SIMAPC for the Metro East St. Louis Area during 1972, with the recommendation that a Regional Waste Treatment Plant be built at Sauget for the treatment of wastes from the existing primary waste treatment plants within the Metro East St. Louis Area. This recommendation was contingent upon favorable biological treatability studies which were successfully completed during the first quarter of 1973.

During April of 1973, a grant application was prepared and submitted to the State and Federal Environmental Protection Agency for the design and construction of a Regional Waste Treatment Plant for the Metro-East St. Louis Area (Lansdowne, East St. Louis, Sauget, and Cahokia Primary Treatment Plants). This grant application was based on an extensive engineering facility report<sup>1</sup> and treatability

1. Ryckman/Edgerley/Tomlinson and Assoc. - Engineering Feasibility Report - "Metro East Regional Wastewater Treatment Facility" Metro East Regional Treatment Association SIMAPC. April 13, 1973.

study<sup>2</sup> and was in agreement with the SIMAPC interim water quality plan for the East St. Louis Intensive Study Area<sup>3</sup>

The grant application has been approved by both the Illinois Environmental Protection Agency and Federal Environmental Protection Agency and presently is ranked #106 on the Fiscal Year, 1975 Water Pollution Control Construction Grant priority list as compiled by the Illinois Environmental Protection Agency dated April, 1974.

Due to the extensive amount of time, effort, and money that has gone into reaching this state in development of a workable regional waste treatment plan for the Metro East St. Louis Area, we urge the continued support of this project by both SIMAPC and the Illinois Environmental Protection Agency. We believe that SIMAPC has already prepared an excellent regional waste treatment plan for the Metro East St. Louis area and we would object to any change in this existing plan.

After reviewing the fact sheet for this hearing prepared by the Illinois Environmental Protection Agency and Section 208 of PL 92-500, we feel that the Regional Waste Treatment Plan for the

2. Ryckman/Edgerley/Tomlinson and Assoc. - "Metro East Regional Waste Water Treatability Study" SIMAPC, April 13, 1973.
3. SIMAPC - "Water Quality Management Interim Plan, East St. Louis Intensive Study Area, St. Clair County, Illinois". October, 1972.

Metro East St. Louis Area meets all of the requirements of the laws with one exception. This exception being Section 208(c)(1) which requires the planning agency to recommend not only what should be done to abate pollution, but also who should be responsible for implementing the plan, and again as stated in Section 208(b)(2)(D), "The identification of those agencies necessary to construct, operate, and maintain all facilities required by the plan and otherwise to carry off the plan".

With the approval of SIMAPC as the regional planning agency almost a certainty, we urge SIMAPC to consider the designation of an owner-operator for the MERTA Regional Treatment Plant as a high priority item. Further delay of this project could severely affect the Federal Environmental Protection Agency construction grant status and the future of the whole project.

The failure to designate an agency to own and operate the MERTA Regional Waste Treatment Plant has delayed implementation of this project for over twenty-one months. Sixteen of these months have been in violation of an Illinois Pollution Control order requiring a resolution of this problem by all parties involved by September, 1973.

The Village of Sauget and Village Association have expended considerable amounts of time and money for the development of a workable Regional Waste Treatment Plan for the Metro-East St. Louis Area and have tried on numerous occasions to resolve the

Regional owner-operator problem. The most recent being a proposal made by the Village of Sauget on May 17, 1974, offering a savings of 3.25 million dollars to the users of the Regional Treatment Plant in return for an agreement for Sauget Village to own and to over-see the operation of the Regional facility.

This proposal and offer is still valid and bears repeating at this time.

POSITION STATEMENT - MERTA REGIONAL ORGANIZATION

1. Sauget own and cause to be operated.
2. Long term contracts with all municipalities in region.
3. Sauget donate land.
4. Residential users receive preferential rates.

Based on a detailed cost analysis report<sup>4</sup> prepared by Ryckman/Edgerley/Tomlinson and Associates, dated April 29, 1974, the Village of Sauget is now in a position to offer a total cost savings to the users of the Regional Treatment Plant of 3.25 million dollars. The 3.25 million dollar offer is made up as follows:

1. Donation of land in Sauget Village for the Regional Treatment Plant at a net worth of \$750,000.

4. Ryckman/Edgerley/Tomlinson and Associates - Wastewater Treatment Costs Analysis - Metro-East Regional Wastewater Treatment Facilities, April 29, 1974.

2. Subsidize the Residential operating and maintenance costs for Regional Secondary Treatment at the rate of \$500,000/year for five years at a total cost to the Sauget industries of \$2.5 million dollars.

The above 3.25 million dollar offer is based on the acceptance by all users of the Sauget Position statement on the MERTA Regional Organization.

Signed,

Paul Sauget (Mayor)  
May 10, 1974

In summary, I would like to stress several points as follows:

1. We feel SIMAPC is completely qualified to prepare the area-wide plans and would urge the Governor to designate SIMAPC as the regional planning agency under Section 208 of PL 92-500 for the three county area of Madison, St. Clair, and Monroe Counties.
2. We urge the continued support of the MERTA Regional Waste Treatment Plan by both SIMAPC and the Illinois Environmental Protection Agency. We believe that SIMAPC has already developed an excellent regional waste treatment plan for the Metro East St. Louis area and we would object to any change in this existing plan.
3. We request that SIMAPC consider the designation of an owner-operator for the MERTA Regional Treatment Plant a high priority

item and consider the Sauget Village proposal as one made in good faith with our belief that this would be the best solution to the Regional Plant owner-operator problem.

Thank you for the opportunity to make a statement at this hearing.



## CHRONOLOGY

### WATER QUALITY MANAGEMENT PLANNING EAST ST. LOUIS INTENSIVE STUDY AREA

THE FOLLOWING CHRONOLOGY GIVES A BRIEF SUMMARY OF THE PERTINENT DATES AND ACTIVITIES CARRIED ON BY THE SOUTHWESTERN ILLINOIS METROPOLITAN AREA PLANNING COMMISSION (SIMAPC) IN THE PREPARATION OF THE WATER QUALITY MANAGEMENT INTERIM PLAN FOR THE EAST ST. LOUIS INTENSIVE STUDY AREA.

SEPTEMBER 3, 1971      RECEIVED LETTER FROM GOVERNOR RICHARD OGILVIE DESIGNATING SIMAPC AS THE QUALIFIED AGENCY TO PREPARE WATER QUALITY MANAGEMENT PLANS (UNDER SECTION 3 (c), PL 84-600), FOR MADISON, MONROE, ST. CLAIR AND RANDOLPH COUNTIES.

JANUARY 14, 1972      RECEIVED 3 (c) GRANT OFFER FROM U.S.EPA, REGION V, CHICAGO.

FEBRUARY, 1972      STARTED PREPARATION OF WATER QUALITY MANAGEMENT INTERIM PLAN FOR THE EAST ST. LOUIS INTENSIVE STUDY AREA.

MARCH 20, 1972      LETTER SENT FROM TED MIKESELL, EXECUTIVE DIRECTOR, SIMAPC, TO PAUL SAUGET, MAYOR, VILLAGE OF SAUGET, EXPRESSING POSSIBILITY OF COST-SAVINGS IN SEWAGE TREATMENT BY TREATING SAUGET'S AND EAST ST. LOUIS' WASTES IN A REGIONAL PLANT.

JUNE 6, 1972      MEETING WAS HELD TO PRESENT POSSIBLE REGIONALIZATION OF EAST ST. LOUIS AND SAUGET SEWER SYSTEMS. DISCUSSION WAS HELD CONCERNING THE TECHNICAL FEASIBILITY OF COMBINED BIOLOGICAL TREATMENT BETWEEN THE TWO SYSTEMS DUE TO THE HIGH INDUSTRIAL LOADINGS FROM SAUGET.

POSSIBLE COST-SAVINGS (CAPITAL OUTLAY AND MAINTENANCE AND OPERATION) WERE ALSO DISCUSSED. BOTH COMMUNITIES EXPRESSED A WILLINGNESS TO SERIOUSLY CONSIDER COMBINING THEIR SYSTEMS IF IT WOULD PROVE TO BE ECONOMICALLY, MANAGERIALLY AND TECHNICALLY FEASIBLE. BOTH COMMUNITIES WOULD ATTEMPT TO OBTAIN A POSITION LETTER FROM THEIR ELECTED OFFICIALS ON THIS MATTER SO THAT POSSIBLE VARIANCES COULD BE OBTAINED FROM THE ILLINOIS POLLUTION CONTROL BOARD WITH REGARD TO THE EFFLUENT STANDARDS TIMETABLE FOR COMPLIANCE. SIMAPC AGREED TO HELP THESE COMMUNITIES OBTAIN SUCH A DELAY PENDING FURTHER STUDY OF POSSIBLE REGIONALIZATION IN THE INTENSIVE STUDY AREA.

REPRESENTATIVES FROM EAST ST. LOUIS, SAUGET AND SIMAPC WERE IN ATTENDANCE.

JULY, 1972 SIMAPC WAS INFORMED BY ENVIRO-CHEM, UNDER CONTRACT WITH THE VILLAGE OF SAUGET RESEARCH AND DEVELOPMENT ASSOCIATION, THAT PRELIMINARY TREATABILITY STUDIES INDICATED THAT INCREASED AMOUNTS OF DOMESTIC SEWAGE WOULD BE NEEDED TO MAKE COMBINED TREATMENT TECHNICALLY FEASIBLE. THE POSSIBILITY OF INCLUDING THE LANSLOWNE PLANT INTO A REGIONAL SYSTEM WAS MENTIONED.

JULY 11, 1972 RECEIVED LETTER FROM PAUL SAUGET, MAYOR, VILLAGE OF SAUGET EXPRESSING CONTINUING INTEREST IN REGIONALIZATION STUDY.

AUGUST 9, 1972 RECEIVED LETTER FROM JAMES WILLIAMS, SR., MAYOR, CITY OF EAST ST. LOUIS INDICATING SUPPORT FOR REGIONALIZATION PLAN IF COST-SAVINGS, TECHNICAL FEASIBILITY AND MANAGERIAL FEASIBILITY COULD BE ESTABLISHED.

AUGUST 10, 1972 MEETING WAS HELD BETWEEN SIMAPC AND EAST SIDE LEVEE AND SANITARY DISTRICT (ESLSD) TO DISCUSS THE REGIONALIZATION STUDY.

AUGUST 18, 1972 RECEIVED LETTER FROM MIKE EBERSOLDT, PRESIDENT, ESLSD EXPRESSING THE FEELING OF THE SANITARY DISTRICT THAT THE REGIONALIZATION STUDY SHOULD BE CONTINUED.

AUGUST 24, 1972 MEETING WAS HELD IN THE SIMAPC OFFICES WITH REPRESENTATIVES FROM EAST ST. LOUIS, SAUGET, ESLSD, SIMAPC AND OTHERS TO DISCUSS THE REGIONALIZATION QUESTION. CONTINUING INTEREST WAS SHOWN BY THOSE IN ATTENDANCE.

AUGUST 30, 1972 SIMAPC PREPARED STATUS REPORT ON EAST ST. LOUIS STUDY AREA AND TRANSMITTED IT TO ILLINOIS EPA AND U.S.EPA.

SEPTEMBER 21, 1972 SIMAPC RECEIVED REQUEST FROM VILLAGE OF SAUGET RESEARCH AND DEVELOPMENT ASSOCIATION TO SPONSOR A TECHNICAL STUDY TO DETERMINE THE FEASIBILITY OF COMBINED TREATMENT. THE ASSOCIATION WOULD PUT UP UP TO \$ 100,000 FOR THIS STUDY. SIMAPC ACCEPTED THIS SPONSORSHIP ROLE.

OCTOBER, 1972 TECHNICAL STUDY ADVISORY COMMITTEE ESTABLISHED. MEMBERSHIP INCLUDED ONE REPRESENTATIVE EACH FROM EAST ST. LOUIS, SAUGET, ESLSD, SIMAPC AND THE EAST-WEST GATEWAY COORDINATING COUNCIL (EWGCC).

OCTOBER 20, 1972 WATER QUALITY MANAGEMENT INTERIM PLAN FOR THE EAST ST. LOUIS INTENSIVE STUDY AREA COMPLETED AND SUBMITTED TO EWGCC, ILLINOIS EPA AND U.S.EPA FOR REVIEW, CERTIFICATION, AND APPROVAL.

OCTOBER 25, 1972      TECHNICAL STUDY INITIATED BY ENVIRONMENTAL ENGINEERING FIRM OF RYCKMAN/EDGERLEY/TOMLINSON AND ASSOCIATES (RETA) UNDER CONTRACT WITH SIMAPC.

NOVEMBER 8, 1972      RECEIVED SIGN-OFF LETTER FROM ILLINOIS STATE CLEARINGHOUSE (OFFICE OF PLANNING AND ANALYSIS).

DECEMBER 6 AND 7, 1972      FEDERAL HEARINGS HELD UNDER 180-DAY NOTICE PROCEDURES BY U.S.EPA IN ANTICIPATION OF VIOLATION IN TREATMENT REQUIREMENTS FOR EAST ST. LOUIS, SAUGET AND ESLSD. AT THESE HEARINGS, THE ABOVE-MENTIONED CONTINUED TO EXPRESS THEIR WILLINGNESS TO PARTICIPATE IN A REGIONALIZATION FOR SEWAGE TREATMENT IF IT WERE PROVEN TO BE TECHNICALLY FEASIBLE, COST-EFFECTIVE AND ADMINISTRATIVELY POSSIBLE. THE FEDERAL GOVERNMENT EXPRESSED INTEREST IN THE REGIONALIZATION AND WOULD REQUEST FURTHER MEETINGS WITH THE ENTITIES TO DISCUSS THIS EFFORT'S PROGRESS.

DECEMBER 13, 1972      ORGANIZATIONAL MEETING WAS HELD BETWEEN EAST ST. LOUIS, SAUGET AND ESLSD AS THE FIRST STEP IN FORMING A LEGAL ENTITY BY WHICH TO MAKE APPLICATION FOR FEDERAL AND STATE CONSTRUCTION GRANT ASSISTANCE IN THE REGIONALIZATION EFFORT IF IT WERE PROVED TO BE TECHNICALLY FEASIBLE AND COST-EFFECTIVE.

FEBRUARY 5, 1973      RECEIVED APPROVAL OF INTERIM PLAN FROM EAST-WEST GATEWAY COORDINATING COUNCIL.

APRIL, 1973      TECHNICAL STUDY IS COMPLETED. RESULTS SHOW THAT COMBINED TREATMENT OF THE WASTES FROM THE THREE ENTITIES IS BIOLOGICALLY TREATABLE AND AT A SUBSTANTIAL COST SAVINGS THAN IF DONE INDEPENDENTLY.

JUNE 2, 1973      RECEIVED CERTIFICATION OF INTERIM PLAN FROM ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.

JUNE 13, 1973      RECEIVED APPROVAL OF INTERIM PLAN FROM U.S.EPA, REGION V, CHICAGO.

IT SHOULD BE NOTED THAT THE WATER QUALITY MANAGEMENT INTERIM PLAN WAS PREPARED UNDER THE ADOPTED PROCEDURES OF THE U.S.EPA AND U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (1971). SIMAPC WAS CHARGED WITH THE DEVELOPMENT OF AN INTERIM PLAN THAT WOULD BE BOTH COST-EFFECTIVE AND ENVIRONMENTALLY COMPATIBLE. CERTIFICATION AND APPROVAL OF THE INTERIM PLAN WAS CONTINGENT UPON IT'S CONFORMITY WITH THESE OBJECTIVES AND PLANNING REQUIREMENTS. ALTHOUGH SIMAPC'S ROLE IN THIS PLANNING EFFORT OFFICIALLY ENDED WHEN THE INTERIM PLAN WAS CERTIFIED AND APPROVED, IT HAS CONTINUALLY OFFERED ITS ASSISTANCE, WHEN ASKED, TO HELP ENSURE SUCCESSFUL PLAN IMPLEMENTATION. SIMAPC WILL CONTINUE THIS POLICY OF OFFERING ASSISTANCE, IF APPROPRIATE, WHEN ASKED.

## SEQUENCE OF EVENTS

### METRO EAST REGIONAL TREATMENT ASSOCIATION

---

February 6, 1973	Illinois Pollution Control Board orders PCB 72-396, 407 (Sauget) and PCB 72-393 (East St. Louis) - Complete Treatability Study and establish legal body to own and operate Regional Facility by September 1, 1973.
April 13, 1973	Association established for the purpose of filing the Federal/State Grant Application.
June 14, 1973	Requests for engineering proposals for design of Regional Facility.
August 20, 1973	Evaluation of engineering proposals complete - Four firms recommended for interviews with MERTA Board.
September 1, 1973	Compliance date for establishing legal body to own and operate Regional Facility. No agreement at this time. Resolution of agreement still pending.
November 6, 1973	Letter from SIMAPC discussing cost effectiveness of Regional Treatment for Lansdowne Service Area. Attempts to resolve disagreement between engineering consulting firms.
February 11, 1974	Letter from Illinois E.P.A. requesting status report on Village compliance with Illinois Pollution Control Board orders #72-407 and #72-396. East St. Louis and Levee District received similar letters.
February 21, 1974	Reponse to Illinois E.P.A. from Sauget Village detailing the Village Position Statement on Regional organization as follows:  <ol style="list-style-type: none"><li>1. Sauget own and cause to be operated.</li><li>2. Long Term Contracts with all municipalities in Region.</li></ol>

February 21, 1974	3. Sauget donate land.
	4. Residential Users receive preferential rates.
April 29, 1974	Report entitled, "Wastewater Treatment Cost Analysis - Metro East Regional Wastewater Treatment Facilities" completed by RETA.
April 29, 1974	Letter from Illinois E.P.A. to Illinois Pollution Control Board detailing status of noncompliance with Board orders #72-396, 72-393, 72-407, and 72-497.
May 10, 1974	Village of Sauget reaffirms position statement on Regional Organization and details 3.25 million cost savings to users which includes \$500,000/year for five years subsidy to residential users.
May 13, 1974	Meeting with representatives from all communities to discuss Sauget Position Statement.
January, 1975	SIMAPC proposed to do 208 Planning Work for areawide waste treatment planning under PL 92-500.
June 30, 1975	SIMAPC approved to do 208 Planning Work and awarded a 1.1 M grant by Federal E.P.A. 208 Plan will include the previously drafted 201 Facilities Plan which includes the MERTA Regional Treatment Facility.

M.R.F.  
July 3, 1975



**SOUTHWESTERN ILLINOIS**  
metropolitan area  
**PLANNING COMMISSION**

President ..... ROBERT L. GARDNER  
Vice-President ..... ALFRED N. YOUNG  
Secretary ..... EDWARD G. HOLZWEG  
Treasurer ..... CHARLES G. CHENOWETH  
Executive Director ..... Theodore H. Mikesell

*Serving Madison, St. Clair, Monroe and Randolph Counties*  
203 West Main Street ☆ Collinsville, Illinois 62234 ☆ (618) 344-4250

November 6, 1973

Dr. John Lee, Mayor  
City of Venice  
City Hall  
Venice, Illinois

Mr. Michael Sasyk, Mayor  
City of Madison  
City Hall  
Madison, Illinois

Re: Secondary Sewage Treatment for the Lansdowne Service Area

Dear Mayors:

During the past two months a series of meetings have been held to discuss the cost-effectiveness of secondary sewage treatment for the Lansdowne Service Area and the implementation problems involved in a single regional secondary facility for the "East St. Louis Intensive Study Area."

Representatives of the Lansdowne Service Area, East Side Levee and Sanitary District, Village of Sauget, East St. Louis, Granite City, Southwestern Illinois Metropolitan Area Planning Commission and the engineering firms of Horner & Shifrin, Ryckman, Edgerley & Tomlinson, and Sheppard, Morgan & Schwaab, among others, attended these meetings in an attempt to arrive at comparable cost figures, between the two above noted alternatives, for providing secondary sewage treatment for the Lansdowne Service Area.

The "Water Quality Management Interim Plan for the East St. Louis Intensive Study Area", in which the Lansdowne Plant is located, was completed in October, 1972 and has subsequently been approved by the State and Federal EPA's as the plan which must be followed if grant funds are to be obtained. Based upon Federal and State guidelines, this plan recommends the construction of a regional secondary plant, for the study area, as the most cost-effective solution for meeting the area's sewage treatment needs.

Significant evidence is available which substantiates the cost-effectiveness of a regional secondary sewage treatment facility as recommended in the approved Water Quality Management Interim Plan. The enclosed attachment summarized the costs which have been discussed at recent meetings and developed through various planning and engineering studies to this point in time.

A number of participants in these meetings have expressed concern that the cost figures which define considerable cost saving in one regional secondary treatment facility are not detailed or conclusive enough to warrant its approval particularly in view of the perceived problems inherent in the implementation of the proposed regional plan.

C07403



Dr. John Lee  
Mr. Michael Sasyk  
November 6, 1973  
Page Two

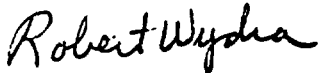
The hesitancy expressed by some participants concerning the cost-effectiveness of the proposed regional plan is, in part, due to the fact that certain design and methodological differences dealing with engineering judgements exist between some of the base studies and supporting information which were utilized to define the cost-effectiveness of the approved regional plan.

It has been suggested by some participants that additional detailed data and more conclusive studies be carried out to insure that the cost savings defined within the adopted regional plan are indeed accurate. Although SIMAPC would certainly support additional studies which would confirm, further detail or alter the cost-effectiveness of the approved plan, it is the opinion of the commission based upon the information which is available at this point in time that the Lansdowne Service Area would certainly pay no more and probably substantially less for secondary sewage treatment at the proposed regional plant than at either a Lansdowne Secondary or a Granite City secondary.

Most of the hesitancy concerning acceptance of the cost-effectiveness of the approved regional plan could, and should be, dispelled in the specific agreements which have not yet been worked out by the implementing body which must be legally organized to operate and maintain the regional facility. The legally constituted corporate body which must be formed to operate and maintain the regional facility must reflect the needs and problems of all participants within its operation. Participants involved in the proposed regional facility should insure that the economic benefits resulting from this regional approach be shared by all users of the system. Only through cooperative efforts for implementation between all participants in the area will it be possible to achieve the cost-savings as defined in the plan.

It is hoped that the above discussion accurately summarizes the current situation and clearly describes the commission's views.

Sincerely,



Robert Wydra  
Water Resources Coordinator

RW:mm

Enclosures

cc: Mr. Jack Scoville (ESLSD)  
Mr. Mike Foresman (Monsanto)  
The Honorable Paul Sauget  
Mr. Ed Juneau  
Mr. Charles Orzechoskie (USEPA)

The Honorable James Williams, Sr.  
Dr. John Day (RETA)  
Mr. George Sallwasser  
Mr. Warren Miller (IEPA)  
Mrs. Mary Lee Leahy

C07404

As presented by RETA:

Costs for Secondary Treatment Only  
Based on Flow and Including "Old"  
and "New" Debt Service

	435 cu. ft <sup>a</sup> /	60 gpcd.	100 gpcd.	¢/1000 gal.
Lansdowne	\$1.14	\$2.21	\$3.68	35
Granite City <sup>b</sup> /	.75	1.45	2.42	23
MERTA	.42	.82	1.37	13
Lansdowne (H and S)	.82 <sup>c</sup> /			

a/ Current monthly minimum flow for Lansdowne area customers used as the basis for monthly billing.

b/ RETA has been informed by MW (engineers for Granite City) that a 50% surcharge might be charged to users of the Granite City plant who reside outside the city limits.

c/ Includes "billing charge" of approximately 10¢/month.

As presented by H and S:

Annual Sewage Treatment  
Costs

Primary and Secondary at Lansdowne	\$486,000 (H and S)	\$784,250 (RETA)
Primary at Lansdowne and Secondary at Regional	$\frac{\$228,000}{\text{RETA}} + \frac{\$2,100,000}{\% \text{ of Regional Flow (approximately 15\%)}}$	= \$543,000

# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

2200 Churchill Road  
62706



Springfield, Illinois  
Phone: 217/525-2027

Effective 5-24-74 -  
217/782-2027

Dr. Richard H. Briceland, Director

*pink copy*

*4-30 AM*

April 29, 1974

## NONCOMPLIANCE WITH BOARD ORDERS

Re: #72-396, #72-393, #72-407, #72-497

The Honorable Jacob DuMelle  
Chairman, Pollution Control Board  
309 West Washington  
Chicago, Illinois 60606

Dear Sir:

This will advise you briefly of the status of compliance of the East Side Levee & Sanitary District, the Village of Sauget, and the City of East St. Louis, with the aforementioned PCB Orders.

The governing bodies involved have had their consultants complete technical studies in order to demonstrate that wastewaters from the collection systems in the three governing bodies are treatable in a regional wastewater treatment plant.

The three governing bodies have formed the Metro-East Regional Treatment Authority (M.E.R.T.A.). MERTA does not constitute a legally founded regional body with authority to construct and operate a regional secondary treatment plant. The purpose of MERTA is apparently to assist in planning and negotiating the formation of an authoritative regional treatment organization. The members of MERTA have all expressed support for the concept of regionalization; however, the members have been unable to work out the details necessary to create a regional organization with the necessary authority.

C07406

Page 2  
Jacob DuMelle  
April 29, 1974

On April 12, 1974, we again advised the members of MERTA of the following:

- 1) The members of MERTA need to form a legal governing body.
- 2) As it currently appears, MERTA will be made up of at least East St. Louis, East Side Levee & Sanitary District, and the Village of Sauget; however, facilities planning requirements, including cost effectiveness analysis, still need to be satisfied.

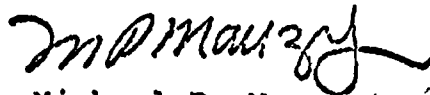
The reporting requirements detailed in the aforementioned Board Orders have not been met. Reports received have been sporadic, inconsistent with Board Order requirements.

Sauget, East St. Louis, and the East Side Levee and Sanitary District are required to file project completion schedules for compliance with appropriate effluent standards. The schedules have not been filed.

This letter is a followup to our report of March 14, 1974.

If you have any questions or comments concerning the foregoing, please advise.

Very truly yours,



Michael P. Mauzy  
Manager, Division of Water Pollution Control

DED/gb  
cc: Attorney General  
All DWPC Section Managers

C07407